

### Office Action Summary

**Application No.**

10/501,163

**Applicant(s)**

KELLER ET AL.

**Examiner**

HASAN S. AHMED

**Art Unit**

1615

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4 and 12-19 is/are pending in the application.
- 4a) Of the above claim(s) 14-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4, 12, 13, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/02)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date 20091028
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

After further consideration, finality of the Office action filed on 10 June 2009 is hereby withdrawn (see PTOL-413, attached).

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### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 12, 13, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 2,383,990 ("Quisling") (cited in the IDS filed on 12 July 2004) in view of U.S. Patent No. 5,972,322 ("Rath").

Independent claim 18 recites a method for improving the condition of hair with natural zein, comprising the steps of providing a cosmetic hair-treatment agent comprising from 0.01 to 10.0 percent by weight of said natural zein as an unhydrolyzed protein obtained from corn; bringing the hair in contact with said cosmetic hair-treatment agent for a time sufficient for hardening, strengthening, restructuring, repairing or stabilizing or for increasing luster, volume, or combability of hair; and rinsing or washing said agent out with water or an aqueous agent.

Quisling teaches a cosmetic treatment for, *inter alia*, hair, comprising proteins (see page 1, left col., lines 1-6). The proteins may include unhydrolyzed zein (see page 1, left col., line 11; page 1, right col., line 31; examples 4 and 10) (reading on claim 18).

The treatment may be used to provide a surface coating for hair suitable for serving as an improved setting, waving, and/or curling agent (see page 1, right col., lines 4-12) (reading on at least the "restructuring" limitation of claim 18). Quisling explains that the disclosed treatment is beneficial in that it has a pleasant odor and is less injurious to hair than previous formulations (see page 1, right col., line 9). The treatment may take the form of a solution (see page 3, right col., line 33) (reading on claim 12). The treatment is applied by bringing the composition in contact with hair (see page 3, right col., lines 18-38) (reading on claim 18). A person of ordinary skill in the art would understand that the treatment is applied at room temperature in view of the disclosure at page 3, right col., lines 18-38, reading on claim 13.

Regarding the time range of claim 19, "Products of identical chemical composition can not have mutually exclusive properties.' A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990)." See MPEP 2112.01. Since the composition disclosed by Quisling is comprised of unhydrolyzed zein, the properties of the Quisling composition vis-à-vis hair interaction will be the same as the properties of the composition being claimed.

Quisling differs from the instant application in that it teaches a zein concentration of 20% (see examples 4 and 10), while instant claim 18 recites a zein concentration of up to 10%. A prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would

have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05. Applicants disclose a zein concentration of up to 20% (see specification, page 3, 9th paragraph); as such, one skilled in the art would have expected the same properties for a composition comprising 10% or 20%.

Quisling differs from the instant application in that it does not teach rinsing or washing the agent out with water or an aqueous agent.

Rath teaches a shampoo, conditioner, or styling system that includes, *inter alia*, a strengthening agent to penetrate the hair to help condition, strengthen, and retain moisture in fine, limp, and protein deficient hair (see col. 10, lines 55-59). The disclosed composition may be used to treat chemically processed hair (see col. 10, line 60) (reading on claim 4). The disclosed composition comprises, *inter alia*, plant-derived proteins (see col. 10, line 62) such as corn gluten (equivalent to zein) (see col. 11, line 9). The protein concentration may be as low as 20% (see col. 10, line 67). The shampoo formulation is massaged into the hair and rinsed from the hair using water, then the conditioner is applied and massaged into the wet hair and rinsed out after 1-2 minutes (see col. 13, line 67 - col. 14, line 3) (reading on claims 18 and 19).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose a method for improving the condition of hair with natural zein comprising providing a cosmetic hair-treatment agent comprising from 0.01 to 10% by weight of natural zein, bringing the hair in contact with the agent, and washing the agent out with water or an aqueous agent, as taught by Quisling in view of Rath. One of

ordinary skill in the art at the time the invention was made would have been motivated to make such a composition because it has a pleasant odor and is less injurious to hair than previous formulations, as explained by Quisling (see above).

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***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HASAN S. AHMED whose telephone number is (571)272-4792. The examiner can normally be reached on 9am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Wax can be reached on (571)272-0623. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. S. A./  
Examiner, Art Unit 1615

/Humera N. Sheikh/  
Primary Examiner, Art Unit 1615